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LAND DEVELOPMENT PLAN

ABERDEEN, NORTH CAROLINA

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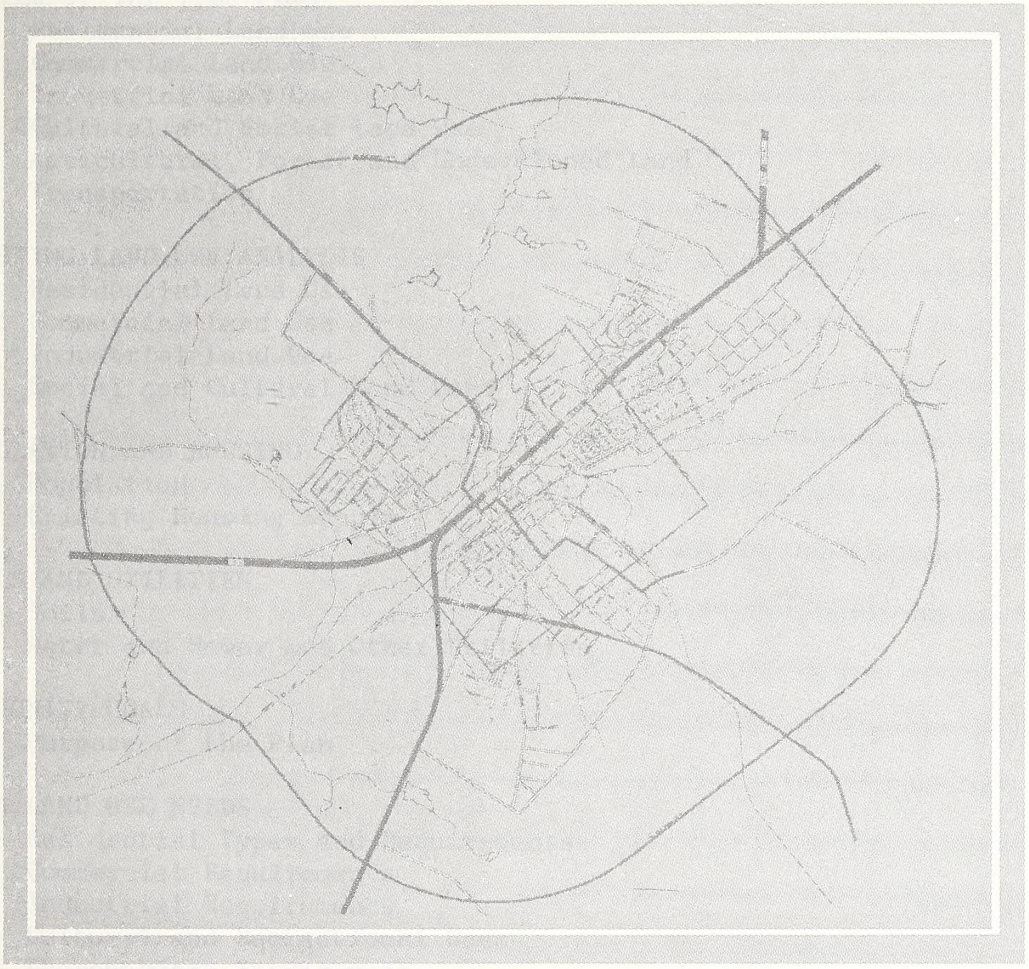

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LAND DEVELOPMENT PLAN

ABERDEEN, NORTH CAROLINA

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INTRODUCTION

This report will review the 1968 Land Use Analysis in light of changed land use, regional development, economic conditions, the 1970 Census results and other factors and provide an updated plan to guide future development of the Aberdeen Planning Area. Through evaluation of certain available statistics and projections for Aberdeen, it will be possible to give some insight into what has happened in the Aberdeen planning area in the last five years. Evaluation of how the developments which occurred affect the 1987 Land Development Plan makes it possible to project development another twenty years from 1973 to 1993.

REVIEW OF THE 1968 PLAN

Residential Land Use

In 1968 single family residential land use accounted for the overwhelming majority of uses constituting 197 acres and 466 housing units within the Town of Aberdeen. One of the major problems in the type of residential development in 1968 was the method of subdividing the land. Lots may range from 4,000 square feet to several acres within the same block. This has lead to large amounts of vacant land within the corporate limits.

Blighted areas also existed in 1968 as they do today. The largest blighted area sections occurs partly in and partly outside of the town limits of Aberdeen. This area is basically a non-white area located south of Raeford Road. Three other non-white residential areas are located within Aberdeen, they are: 1) a few homes located adjacent to the railroad tracks in the northern part of the town; 2) north of Page's Lake, and 3) south of town in the Pinehurst Street area a small number of non-white residences.

INTRODUCTION

This report will review the 1968 land use analysis in light of current land use, regional development, economic conditions, the 1970 Census results and other factors and provide an updated plan for guiding future development of the Aberdeen Planning Area. Through evaluation of certain availible statistics and projections for Aberdeen, it will be possible to give some insight into what has happened in the Aberdeen Planning area in the last five years. Evaluation of how the development which occurred after the 1968 Land Development Plan makes it possible to project development during the ensuing years from 1973 to 1993.

REVIEW OF THE 1968 PLAN

Residential Land Use

In 1968 single family residential land use accounted for the greatest available majority of uses constituting 187 acres and occupying units within the Town of Aberdeen. Use of the majority resulted in the area of residential development in 1968 was the method of subdividing the land. Lots may range from 4,000 square feet in size or more within the same block. This has led to large amounts of vacant land within the existing limits.

Dilapidated areas also existed in the city of Aberdeen. The largest dilapidated area sections which exists in the public housing of the town limits of Aberdeen. This area is basically a residential area located south of Wedgwood Road. There exist sub-units contained dwellings located within Aberdeen, that are: 1) a few homes located adjacent to the existing trailer in the southern part of the town; 2) north of Veale's Lake, and 3) south of town in the Hamburg Street area, mostly model of non-white residences.

Commercial Land Use

The overall commercial situation was good in 1968, with the CBD providing a diversified mixture of business uses convenient to all residential areas in town and in the trading area. It will remain to be seen if a secondary shopping center would weaken the present Central Business District. For the present, however, the Aberdeen CBD serves all of the residents of the town and also much of the Sandhills region.

Industrial Land Use

Industrial land uses account for only 2.6 percent of the developed land within the municipal limits of Aberdeen with 18.2 percent located within the one-mile area of the town. Most of Aberdeen's industry is located just west of the town adjacent to highway N.C. 5 and the Norfolk and Southern Railway offering excellent rail transportation.

Cultural and Social Land Use

Included in this group of land uses are such items as libraries, parks, schools and churches. In 1968 nine percent of the developed land in Aberdeen was devoted to these uses, accounting for 35 acres within the town. The Aberdeen School, however, is located in an undesirable location, being located adjacent to U.S. 1 which makes driving and departing from school more dangerous for buses and pedestrians.

Agricultural, Forest and Undeveloped Land

This undeveloped land use accounted for 53.6 percent of the total land area within the one-mile area of the town in 1968.

Commercial Land Use

The overall commercial situation was good in 1968, with the CBD providing a diversified amount of business. Good customer benefit residential areas in town and in the Central Area. It will remain in the town to a secondary shopping center would make the proposed Central Business District. For the present, however, the amount land serves all of the residents of the town and also much of the Mobility region.

Industrial Land Use

Industrial land uses account for only 1% of the developed land within the municipal limits of Aberdeen with 1% percent located within the Centralia area of the town. Most of the Industrial industry is located just west of the town adjacent to highway U.S. 5 and the Norfolk and Southern Railway offering excellent rail transportation.

Cultural and Social Land Use

Included in this group of land uses are such items as libraries, parks, schools and churches. In 1968 some percent of the developed land in Aberdeen was devoted to these uses, concerning the Aberdeen Street, however, is located in a commercial location, being located adjacent to U.S. 1 which makes it more and more important for these and industries.

Agricultural, Forest and Undeveloped Land

This undeveloped land use is shared for 31% percent of the total land area within the one-mile area of the town in 1968.

Transportation

An analysis of thoroughfare systems in 1968 revealed six significant facts:

(1) Streets do not provide access between all parts of town without passing through the Central Business District.

(2) The Aberdeen street system has created blocks too long and too short as well as blocks of odd shapes.

(3) Vacant low areas and Page's Lake have tended to force traffic between these two areas to use South Street, U.S.1, and Main Street, and Poplar Street as an interchange in the business district.

(4) Most automobile trips in Aberdeen either cross or use U.S. 1, presenting a hazardous situation.

(5) Fourteen street-railroad intersections with crossings at the same grade, exist in Aberdeen. This also presents a potentially hazardous situation which should be avoided whenever possible.

(6) A lack of sidewalks. Only the business district is presently served with adequate sidewalks.

EXISTING LAND USE ANALYSIS

This section will provide a re-evaluation of land development in Aberdeen. Emphasis will be placed on determining in what manner development has occurred since the 1968 Plan. This analysis is undertaken in order to provide a base for the formulation of a plan for the future development of Aberdeen and its extraterritorial area.

Transportation

An analysis of transportation systems in 1968 revealed six significant problems:

(1) Streets do not provide a link between all parts of town and only marginally connect the Central Business District.

(2) The American street system has created blocks too long and too short as well as blocks of odd shapes.

(3) Vacant lots across and Tage's Lake have tended to force traffic between Lake Ave. on the South Street, U.S. 1, and Main Street, and Poplar Street to an intersection in the business district.

(4) Most automobile traffic in Aberdeen flows cross or use U.S. 1, presenting a dangerous situation.

(5) Foreign street-railroad intersections with crossings at the same grade, exist in Aberdeen. This also presents a potentially hazardous situation, which should be avoided wherever possible.

(6) A lack of sidewalks. Only the business district is presently served with adequate sidewalks.

CITIZEN INPUT DEA ANALYSIS

This section will provide a re-evaluation of land development in Aberdeen. Emphasis is will be placed on examination to what extent development has occurred since the 1968 Plan. This analysis is undertaken in order to provide a base for the formulation of a plan for the future development of Aberdeen and its surrounding land area.

During the summer of 1973, the Division of Community Services conducted a field survey of existing land use within the City and the one-mile area. (Figure 1) The same basic land use categories were used in 1973 that were utilized in 1968.

The major land use change has been that of the new annexed area north along U.S. 1. This area was not a part of the City in 1968.

Residential Land Use

Residential development consisted of 208 acres of developed land within the town in 1973 and 236 in the one-mile area. The major areas of residential development are the Ridgewood subdivision north of Aberdeen on Poplar Street, the Forest Hills area, and the area east of SR 2053 which is developed primarily with multi-family units. Presently there are approximately 1,000 residential dwelling units in Aberdeen and the one-mile area with 555 within the town itself.

Commercial Land Use

Presently, commercial land use occupies 38 acres within Aberdeen and 50 acres within the one-mile area giving a total of 88 acres for the Aberdeen Planning area. The major change since 1968 has occurred north on U.S. 1 and U.S. 15-501. Two major shopping centers dominate the commercial use in this area; the Sandhills Shopping Center on U. S. 1 and a new center presently under construction on Johnson Street between U.S. 1 and U.S. 15-501. Both of these complexes provide adequate parking and one-stop shopping, which is essential on a major thoroughfare.

During the summer of 1973, the Division of Community Services conducted a field survey of existing land use within the study area and commercial areas (Figure 1). The land use classification categories were used in 1971 that were utilized in 1968.

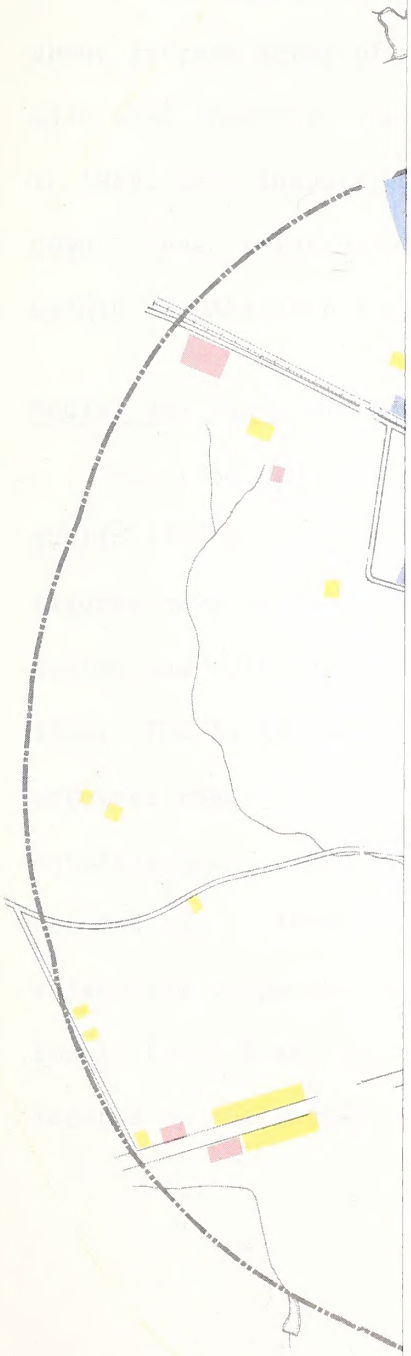
The major land use changes had occurred at the new arterial area north along U.S. 1. This area was not a part of the city in 1968.

Residential Land Use

Residential development occurred at the edges of developed land within the town in 1973 and 1974 on the [illegible]. The major areas of residential development are the [illegible] north of [illegible] on Poplar Street, the [illegible] and the [illegible] of 20th Street is developed primarily with multiple units. Currently there are approximately 1,000 residential housing units in Hayward and the [illegible] with 333 within the town limits.

Commercial Land Use

Currently, commercial land use [illegible] 40 acres within the [illegible] area within a [illegible] the Downtown Planning area. The major [illegible] 0.9, 1 and 0.5 [illegible]. The major [illegible] commercial [illegible] in the area [illegible] under construction on [illegible] U.S. 1 and [illegible] property [illegible] these [illegible] and [illegible], which is essential [illegible].



During the summer of 1971, the Division of Economic Services undertook a field survey of existing free-use areas in the City and the Aberdeen area (Figure 1). The same survey instrument questionnaire used in 1969 that were utilized in 1969.

The major land use changes that have taken place of the new proposed area north along U.S. 1. This area was not a part of the study in 1969.

Residential Land Use

Residential development consisted of 108 acres of developed land within the town in 1971 and 5.5 in the commercial area. The major areas of residential development are with the Edgewood subdivision north of Aberdeen on Prospect Street, the Forest Hills area, and the area east of MD 2051 which is developed primarily with residential units. Presently there are approximately 1,065 residential dwelling units in Aberdeen and the commercial area with 555 units for town itself.

Commercial Land Use

Presently, commercial land use consists of 47.4 acres within Aberdeen and 65 acres within the commercial area of the area for the Aberdeen Planning area. The major change since 1969 has occurred north on U.S. 1 and U.S. 40/40A. The major existing problem involving the commercial use in this area, the commercial strip along U.S. 1 and 40 has certain problems under consideration in Aberdeen Urban Renewal between U.S. 1 and U.S. 40 [illegible]. Each of these problems involve driveway spacing and curb-cut [illegible], which is essential to a major thoroughfare.

EXISTING LAND USE
1973

RESIDENTIAL
COMMERCIAL
INDUSTRIAL
SOCIAL AND CULTURAL
VACANT AND UNDEVELOPED

ABERDEEN
NORTH CAROLINA

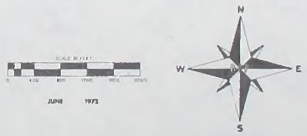


FIGURE 1

Many of these commercial uses were included in the area annexed since 1968. Other areas, including the new shopping center under construction, could be brought into the town by additional annexation.

Industrial Land Use

Industrial land uses within Aberdeen are still very minimal, occupying about fifteen acres of the total developed land within the town. The one-mile area, however, includes 175 acres of industrially developed land. As in 1968, most industry is still locating outside the municipal limits of the town. Seven relatively small industries have been established since 1968 within the Aberdeen planning area (Table 1).

Social and Cultural Land Uses

The 1968 Plan indicated that 35 acres were devoted to public and semi-public land use in Aberdeen and 65 acres within the one-mile area. These figures have changed somewhat since 1968. At present there are 90 acres of social and cultural land uses in Aberdeen and 72 acres within the one-mile area. The large majority of these uses are a result of the recently acquired Page's Lake area by the town for the purpose of recreational entertainment. This area is to be developed in stages beginning in 1975 and terminating in 1978. Within this same land use category also, two new relatively large churches have been built since 1968. One is located between Bonnie Brook Road, and Page Road in the newly annexed area. The other is located on the corner of Montford Street and U.S. 15-501.

Many of these commercial uses were included in the area annexed since 1968. Other areas, including the pee snapping centre under construction, could be brought into the town by additional annexation.

Industrial Land Use

Industrial land uses within Aberdeen are still very minimal, occupying about fifteen acres of the total developed land within the town. The industrial area, however, includes 175 acres of inactively developed land. As in 1964, most industry in still located outside the municipal limits of the town. Seven relatively small industries have been established since 1964 within the Aberdeen planning area (Table 1).

Social and Cultural Land Uses

The 1968 Plan indicated that 35 acres were devoted to public and semi-public land use in Aberdeen and 65 acres within the "recreation area". These figures have changed somewhat since 1968. At present there are 30 acres of social and cultural land uses in Aberdeen and 72 acres within the annexed area. The large majority of these uses are a result of the recently acquired Fuge's Lake area by the town for the purpose of recreational enjoyment. This area is to be developed in stages beginning in 1973 and terminating in 1976. Within this area land use category also, has seen relatively large increases have been made since 1968. Use is located between Beagle Creek Road, and Fox Road in the newly annexed area. The other is located on the corner of Montford Street and U.S. 12-301.

TABLE 1
INDUSTRIES LOCATED IN THE ABERDEEN PLANNING AREA SINCE 1968

Industry	Estimated Date	Employment	Products Manufactured
1. Carolina Galvanizing and Gate Corporation	1969	20-49	Steel gates, steel galvanizing, steel angles.
2. Ceralon Manufacturing Co.	1971	10-19	Ornamental Furniture.
3. Farm Chemicals	1971	5-9	Agricultural chemicals, Liquid fertilizer.
4. Key Company	1970	50-99	Mobile Homes.
5. Zenith Fabrics Corporation	N.A.	N.A.	Knit tricot fabrics.
6. Colonial Abrasive Prod. Co.	1973	N.A.	N.A.
7. Knitaway Research Fabrics	1968	N.A.	N.A.

Source: Division of Commerce & Industry, Directory of North Carolina Manufacturing Firms, 1972-73, Page 606

POPULATION AND HOUSING

The following analysis will try and show some of the major changes in the population and existing housing supply since the 1968 plan. Data in this section was provided primarily from the 1970 Census.

Population

The population growth of Aberdeen itself has been somewhat erratic, as can be seen in Table 2. Although losing some population during two separate decades (1930-1940 and 1950-1960), Aberdeen has shown an overall increase in population from 1910 to 1970 with some of the 1970 population increase being attributed to the 1969 annexation.

While projections in population are subject to error primarily because all projections are based upon past trends, the projections for the year 1970 noted in the 1967 Population and Economy Study for Aberdeen were very accurate. Projected 1970 population for the entire Aberdeen Planning Area was 3,191; and if one considers that half of this figure lives within the town itself, a population figure of 1,595 was projected for Aberdeen in 1970. The actual census count for 1970 was 1,592, a difference of only 3 persons over the projected 1970 population. The actual count confirmed a continuation of the past growth rate for both Aberdeen and Moore County in the last decade.

Table 3 lists the population increases, and percentage growth rate for Aberdeen and Moore County, along with future population projections.

Table 2
POPULATION TREND FOR ABERDEEN: 1910-1970
(Showing Percent Increase Per Decade)

1910	% Inc.	1920	% Inc.	1930	% Inc.	1940	% Inc.	1950	% Inc.	1960	% Inc.	1970
794	+8.1	858	+6.1	1,382	-2.2	1,076	+4.9	1,603	-4.5	1,531	+4.0	1,592

Source: Division of Community Assistance
Population of Counties and Minor Civil Divisions 1910-1960 (N.C. Department of Conservation and Development, Raleigh, N.C., 1962) & Bureau of Census, 1970.

Table 3
POPULATION PROJECTIONS, 1980 AND 1993, ABERDEEN AND MOORE COUNTY

	1960	% Change	1970	% Change	1980[1]	% Change	1993
Aberdeen	1,531	+4.0	1,592	+3.3	1,645	+9.0	1,794
Moore Co.	36,733	+6.3	39,048	+6.9	41,755	+17.3	48,990

[1]Projections are based upon the arithmetic mean method for the planning period.

Aberdeen, like many towns of its size and the United States population in general, has experienced a shift in the composition of its population with the very young and the elderly segments gaining in relation to the population as a whole. In 1960, 33.7 percent of Aberdeen's people were under 14 years of age; and by 1970 this age group had decreased to 27.8 percent. During this time the population of older people in the population had increased. In 1960 people 65 years old and older accounted for 8.2 percent of Aberdeen's population. In 1970, this group had increased to 10.4 percent of the population (see Table 4).

TABLE 4
POPULATION DISTRIBUTION BY AGE AND SEX, ABERDEEN, 1960 AND 1970

1960	Males	Females	1970	Males	Females
Population Total	732	799	Population Total	733	859
Under 5	101	85	Under 5	61	72
5-14	170	160	5-9	75	62
15-24	89	89	10-14	86	87
25-34	100	113	15-18	61	63
35-44	88	108	19-24	62	96
45-54	71	91	25-34	93	92
55-64	65	76	35-44	71	86
65 and over	48	77	45-54	108	108
			55-64	52	90
			65 and over	64	103
MEDIAN AGE	25	30	MEDIAN AGE	26	33

Source: General Population Characteristics, Bureau of the Census, 1960 and 1970.

The implications of this shift to a population of more elderly and young people, are many. First, and most important, this trend cannot continue into the future, as can be seen in the under 14 years age group. In 1960 it was 33.7 percent whereas in 1970 this group comprised 27.8 percent of the population, a reduction of 5.9 percent in 10 years. If the productive and fertile people of 20-40 years of age continue to leave Aberdeen then the percentage of young people under 20 years will also continue to drop. The percent of children in the population cannot keep increasing or even maintain its present level while the child-bearing group in the population decreases. Thus, if efforts to prevent the migration of productive, child-bearing age groups are not made successfully, then the composition of Aberdeen's population will shift more and more to an elderly population in the future.

Also important with respect to population age group in Aberdeen, is the median age. The median age is that point dividing the population into groups; half who are older than the median age and half who are younger than the median age. If it were not for the effects of migration we could probably expect the median age to be lower than it is in Aberdeen. For North Carolina since 1900 the median age has steadily risen, reflecting increased average life spans. Information on median age for Aberdeen is available only since 1930.[2] Since 1930, however, the Aberdeen median age has been substantially above the state median age for every census. The higher Aberdeen median age seems to be explained by the migration of young people from Aberdeen to other cities and towns over a long period of time. The sharp drop in the Aberdeen median age from 1950 to 1960 probably reflects the post World War II, "baby-boom" more than a slowing down of the out-migration rate.

---

[2]Division of Community Planning, Population and Economy Study; Aberdeen, North Carolina, p. 7, 1967.

The implications of this model is a population of some [illegible] and [illegible] years, are [illegible]. First, and most important, this error [illegible] into the future, we can be sure [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] population. [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

The racial make-up of Aberdeen shows that approximately 9.0 percent of the people in Aberdeen are non-white, with a high percent of the non-white population concentrated in the lower age groups. Non-whites less than 20 years old comprise 56.5 percent of the non-white population, whereas only 38.3 percent of the white population is less than 20 years old. The reverse is true in the age group 20-45 years. One third of the white population falls in this group while only 15.9 percent of the non-white population falls in the group. In the age group 45-60 there is a relatively high percentage of non-whites. Of the non-white population, 24.8 percent are in this group compared to 13.5 percent of the white population in the 45-60 age group. In the white population, 14.8 percent are age 60 and above; and only 7.8 percent of the non-white population is age 60 and above.

The overall pattern shows a much larger percent of the non-white population under 20 years old than the white population. Above age 20, non-whites begin leaving Aberdeen. The tendency of non-whites to leave Aberdeen beginning about age 20 is shown by the smaller percentage of non-whites in the 20-45 age group. The trend of young whites leaving Aberdeen apparently began about 20 years ago as evidenced by the relatively smaller percentages of whites in the 45-60 age group. For the age group 60 and above, the longer life expectancy of whites manifects itself.

Existing Housing Supply

The 1970 Census of Population provides some very interesting insights into the existing housing supply in Aberdeen. There were a total of 555 year-round housing units listed in the 1970 Census. There were a total of 3,065 rooms in occupied and vacant year-round housing, which averaged approximately 1.0 persons/room. While 17.1 percent of all units have more than four persons, 93.1 percent of all housing units have four or more rooms.

The racial make-up of Aberdeen shows that approximately 8.0 percent of the people in Aberdeen are non-white, with a high percent of the non-white population concentrated in the lower age groups. Non-white population 45 years old comprise 58.5 percent of the non-white population, whereas only 38.1 percent of the white population is less than 15 years old. The reverse is true in the age group 20-45 years. One third of the white population falls in this group while only 15.0 percent of the non-white population falls in the group. In the age group 45-60 there is a relatively high percentage of non-whites. Of the non-white population, 26.4 percent are in this group compared to 17.5 percent of the white population in the 45-60 age group. In the white population, 14.6 percent are age 60 and above; and only 6.6 percent of the non-white population is age 60 and above.

The overall pattern shows a much larger percent of the non-white population under 25 years old than the white population. Since age 20, non-whites begin leaving Aberdeen. The residence of non-whites in Lower Aberdeen beginning about age 20 is shown by the smaller percentage of non-whites in the 20-45 age group. The exam of young whites leaving Aberdeen apparently began about 10 years ago as evidenced by the relatively smaller percentages of whites in the 45-60 age group. For the age group 60 and above, the longer life expectancy of whites manifests itself.

Existing Housing Supply

The 1970 Census of Population reaches some very interesting insights into the existing housing supply in Aberdeen. There were a total of 535 year-round housing units listed in the 1970 Census. There were a total of 3,005 rooms in occupied and vacant year-round housing, which averaged approximately 1.0 persons/room. While 47.1 percent of all units have more than four persons, 23.1 percent of all housing units have four or more rooms.

TABLE 5
HOUSING AND POPULATION, 1970 CENSUS OF POPULATION

Total Year-round Housing Units	555
Number without complete plumbing	30
Occupied year-round housing units	520
Units with or less than 1.00 persons/room	487
Units with more than 1.01 persons/room	23
Units with more than 1.51 persons/room	10
Units with 1.01 persons/room or more	
Number of persons	226
Under 18 years	142
18-64 years	80
65 years and over	4
Persons in units with all plumbing	1,486
Persons in units without all plumbing	98
Units with 1.51 Persons/room or more	
Number of persons	85
Under 18 years	61
18-64 years	23
65 years and over	1

Source: Bureau of the Census, 1970 Final Population Counts.

Table 5 presents a summary of housing and its relation to the population of Aberdeen.

SOILS AND UTILITIES

Soils

One of the most critical items to take into account when platting future land use is that of soils. Soil permeability, its shrink-swell potential, its depth to bedrock and the flood hazards it represents are certainly in direct relationship to its usability for certain types of land use.

The major soils of the Aberdeen area are grouped into three soil associations. Each of the three major soil associations in the Aberdeen Planning area is described and its major limitations discussed in the text below:

Bibb. These soils are characterized as wet, poorly drained, and subject to high water and flooding. These soils are the wet bottom land found along the streams throughout the area. Because of the excess surface water and subsurface water, these soils have severe limitations when used with sewerage systems, filter fields, basements, light industry, roads, and certain recreation uses.

Blaney-Gilead-Troup. The soils of this association are generally well to moderately well drained upland sandy soils. The surface sands vary from 15 to 72 inches in depth. The shallower sands are underlain by a sandy clay loam sub-soil. The deeper sands of the association are underlain by a sandy clay to a sandy clay loam subsoil. The deeper sands of this association have very open, porous surfaces which allow rapid inflitration and there is little surface run-off during normal rains, unless the land is already saturated, then on areas of sufficient slope, the sand flows.

table 2 presents a summary of Sonoma and its relation to the regulations of Ingraham.

SOILS AND MOISTURE

Soils

One of the most critical areas in some land-use zoning from physical factors land use is that of soils. Soil properties, the soil's inherent potential, its ease to develop and its final usefulness is remarkably and certainly in direct relationship to the understanding the certain physical land use.

The major soils of the Sonoma area are described briefly below. Each of the three major soil associations in the Sonoma planning area is described and its general characteristics or the land use.

Alluvial. These soils are characterized by sand, gravels, cobbles, and silt-size in high water and flooding. These soils are can be active land-forming along the streams throughout the area. Because of the sand-gravel-cobble and subsurface water, these soils have good drainage, but low water holding capacity. Fertility, filter fields, subsoils, high permeability, and certain restrictions when wet.

Alluvial-Colluvial-Fluvial. The soils of this association are generally well drained with deeper colluvial soil solum. The surface soils vary from 15 to 27 inches in depth. The subsoils soils are underlain by a sandy clay loam substratum. The deeper soils of the association are underlain by a sandy clay to a sandy clay loam substratum. The depth ranges of this association are very wide, having surfaces soils also range in texture and there is little surface run-off during normal rains, because the land is already saturated. Due to their of additional water, the soil floods.

There is a danger of both wind and water erosion with soils of this association. On slopes of over 4 percent, water erosion is a problem. On the broad flat areas, these sandy soils are susceptible to wind erosion. The shallower soils of this association have moderate to severe limitations for septic tanks, filtration fields, and basement construction. Well contamination is a danger in the deeper sands of the association.

Lakeland-Troup. These soils are the deep sands of the 'Sandhills'. They are open porous, inherently droughty with very low fertility, low mositure holding capacity, highly susceptible to wind erosion, and will 'flow' on the deeper slopes if saturated. They have been used in many places as commercial sand pits.

Wind and water erosion is the major danger of these sands. A protective cover of vegetation is needed to prevent erosion in soils of this association. The danger of destroying vegetation and the difficulty of pedestrian movement in these sands makes them unsuitable for intensive play areas. Low filtering action also presents a possible problem of well contamination in some of these soils.

These general comments on the soils of the Aberdeen Planning Area together with the Soils Condition Interpretation Chart (see Table 6) and the Soils Map (see the Land Development Plan for 1968 for Aberdeen) should give private individuals and public officials a better idea of the limitations of soils in the area.

Water and Sewer and Other Utilities

Utilities, especially water and sewer service, are principal factors in determining the location, type, pattern and density of development. Thus, an understanding of the existing and proposed systems, and coverage of areas in the planning area is important to the Land Development Plan.

There is a danger of both when and where drilling, with details of this exploration. On slopes of over 5 degrees, water contact is a problem. In the broad flat areas, there danger of is are disproportionate to such exposure. The shallower aquifer of this association has indicated to serious interactions for aquatic taxa, filtration fields, and homesites connections. Well contamination is a danger if the deeper aquifer of the association.

Lake-Front. These series are the deep aquifer of the 'Sandhills'. They are open porous, subsurface drainage with very low fertility. Low moisture holding capacity, highly susceptible to wind erosion, and well 'blown' in the deeper slopes if saturated. They have been used in many places as commercial sand pits.

Wind and water erosion is the main danger of these soils. A protective cover of vegetation is needed to prevent erosion in spite of this protection. The danger of contamination exists and the aquifer of contamination exists in these soils make them unsuitable for [illegible] purposes. Low filtering action also provides a possible problem of sewage contamination in some of these soils.

These soils [illegible] on the basis of the [illegible] and [illegible] with the Soil Conservation Interpretation Index (see [illegible]) in the Land Development Plan for the Sandhills. Soils are matched to [illegible] and public officials a better idea of the [illegible] of soils in an area.

Water and Sewer and Other Utilities

Utilities, especially water and sewer service, are a critical factor in determining the location, type, intensity and density of development. This section considers the existing and proposed systems, and discusses the planning area in important to the Land Development Plan.

TABLE 6

SOIL INTERPRETATIONS FOR ABERDEEN, NORTH CAROLINA, AND ENVIRONS

Soil Associations	Dwellings With		Limitations for					Suitability for	
			Recreation			Light Industries[1]	Roads & Streets[2]		
	Sewerage Systems	Septic Tank Filter Fields	Camp Sites	Picnic Areas	Intensive Play Areas			General Agriculture	Woods
Bibb	Severe	Severe	Severe	Severe	Severe	Severe	Severe	Poor	Good[3]
Blaney-	Slight	Moderate	Moderate	Moderate	Moderate	Moderate	Slight	Fair-Good	Good
Gilead-	Slight	Moderate to Severe	Slight	Slight	Slight to Moderate	Moderate	Moderate	Fair-Good	Good
Troup	Slight	Moderate	Moderate	Moderate	Moderate	Slight	Slight	Poor-Fair	Fair-Good
Lakeland	Slight	Moderate	Moderate	Moderate	Severe	Slight	Slight	Poor	Fair
Troup	Slight	Moderate	Moderate	Moderate	Moderate	Slight	Slight	Poor-Fair	Fair-Good

Source: U.S. Department of Agriculture, Soil Conservation Service, Raleigh, North Carolina.

1. Structures where footings are subsoil

2 Refers to roads and streets that have subsoil for base

3 Drainage system sometimes necessary

Water. Municipal water in the Aberdeen Planning Area is provided by a combination of wells and a spring-fed reservoir. At present, chlorine and fluoride are added to Aberdeen water, but the town does not have a water treatment plant. The only new areas served by water are north along U.S. 15-501 and including the newly constructed shopping center between U.S. 15-501 and N. C. 211. The Sandhills Shopping Center, lying adjacent to the new center, has its own water system.

Sewer. The Town of Aberdeen owns and operates a sanitary sewer system serving a large part of the incorporated area, as well as small areas north and west of town. The collection system itself consists of four through 10-inch sewers and a 15-inch outfall to convey the collected wastewater to a waste treatment plant located south of the intersection of U.S. 1 and U.S. 15-501.[3]

The regional wastewater system for Moore County will alleviate any demand by Aberdeen's present waste treatment plant by taking all waste from the towns on the system, including Aberdeen, and conveying this waste to one central waste treatment plant.

Power. Electric power in the Aberdeen Planning Area is provided by the Carolina Power and Light Company. It is the Company's policy to extend service to anyone requesting it.

Telephone. Telephone service in the Aberdeen Planning Area is provided by the Sandhill Telephone Company of Aberdeen. Telephone Service is available to anyone requesting it in the planning area. In some instances, lines may have to be constructed in order for a customer to be connected to the system, but the company pays the construction cost and installs the lines.

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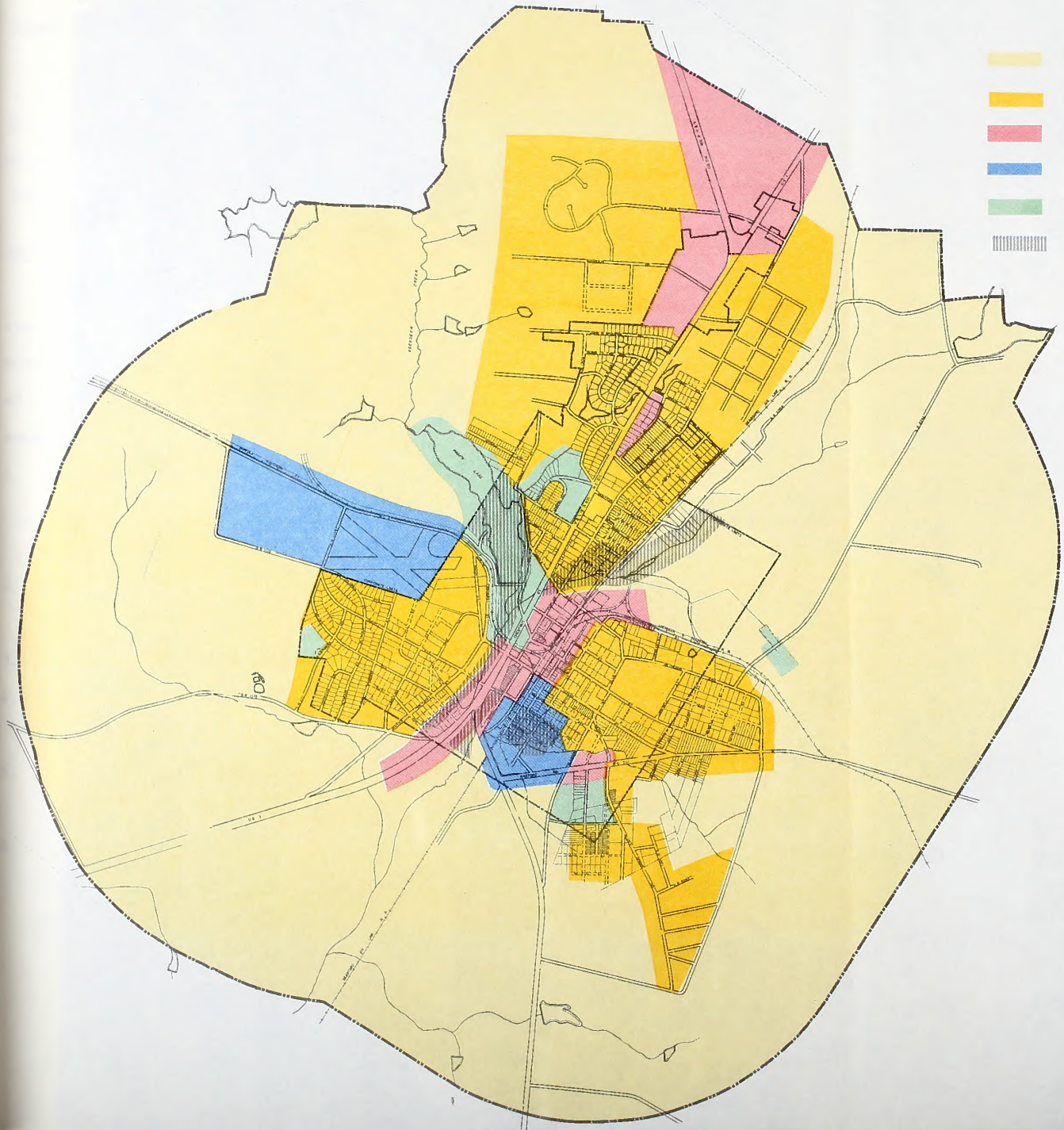
[3]Moore County Wastewater Facilities, (Henningson, Durham, & Richardson, Charlotte, N. C., 1973).



LAND DEVELOPMENT PLAN

- RESIDENTIAL LOW DENSITY/AGRICULTURAL
- RESIDENTIAL
- COMMERCIAL
- INDUSTIAL
- SOCIAL AND CULTURAL
- FLOOD PRONE AREAS

ABERDEEN
NORTH CAROLINA

FIGURE 2

COMMUNITY GOALS

The purpose of the updated Development Plan is to guide the growth process of the town in a logical, orderly fashion and to insure a well-balanced community from a physical, economic, and social point of view. (See Figure 2).

Purpose of the Plan

The Development Plan and its update represent the initial step in the planning process. The original plan was brought about through the determination of community goals which are expected to guide the future development of the town. The following is a general statement of the goals which are encompassed in the original plan and the updated plan:

1. To create desirable living areas, in the form of neighborhoods which are free from through traffic, and devoid of those land uses which may be hazardous or disturbing to residential living.
2. To provide for all of the uses of land and services which, together, make up a self-sustaining community to benefit all of the residents.
3. To further promote Aberdeen's economic position in an orderly manner.
4. To provide an adequate circulation system for the safe, efficient movement of people and goods within and through the town.
5. To promote the highest standard of utility and attractiveness in all future developments in the town.
6. To provide direction in the re-development of those portions of the town that have become blighted because of age, absolescence or environmental deficiencies.

COMMUNITY GOALS

The purpose of the updated development Plan is to guide the growth process of the town in a logical, orderly, and economic manner to achieve a well-balanced community from a physical, economic, and social point of view. (See Figure 1).

Purpose of the Plan

The Development Plan and the Capital Improvement Plan initial step in the planning process. The original plan was prepared about 10 years the determination of community goals which are required to guide the future development of the town. The following is a general statement of the goals which are accompanied in the original plan and the updated plan.

1. To ensure desirable living areas, in the form of neighborhoods which are free from through traffic, and devoid of those land uses which may be hazardous or disagreeable to residential living.
2. To provide for all of the land uses and services which, together, make up a self-sustainable community to satisfy all of the residents.
3. To forever conserve Hardwood Hammock, Hammock Hills in its orderly manner.
4. To provide an adequate circulation system for the easy, efficient movement of people and goods within and through the town.
5. To promote the highest standards of utility and effectiveness in all future developments in the town.
6. To provide a revision in the redevelopment of those regions of the town that have become blighted to assure the elimination of environmental deficiencies.

These goals can only be realized through translation of the Development Plan and its update into a continuous action program for improving the Town of Aberdeen.

1993 LAND DEVELOPMENT NEEDS

Future land use requirements are closely tied to the projected population. In the 1968 Land Development Plan, the 1987 population for the Aberdeen Planning Area, which includes the town and its one-mile area, was projected to be 4,252.[4] The current estimate by the Division of Community Services for the year 1993 is projected to be approximately 4,596. Because of Aberdeen's ability to annex, it is not realistic to project a population for the town itself. The 1993 projected population of 4,596 for the Aberdeen Planning Area will be used for computing land use requirements for the planning area from 1987, the year projected in the 1968 Land Development Plan, to 1993, a six-year difference in projections from the last or the 1987 projection. This six-year difference in projections represents an increase of 344 persons.

Residential Types and Requirements

Solving the housing problems of Aberdeen in the future and possibly the future population of the town will depend a great deal on the type of housing available. Logically, the more types of housing available, the more persons that can have their housing needs satisfied in the Aberdeen area. This is not meant to suggest that an over supply of housing be built.

There are two modes in which to describe housing type. The most common would be as a description of construction: single-family detached, duplex, apartment, mobile-home, etc. The second use of "housing type" would be

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[4]Division of Community Planning. Land Use Survey and Analysis, and Land Development Plan, Aberdeen, N.C., 1968, p. 44.

These goals can only be realized through revaluation of the development plan and its update into a continuous action program for improving its role of decision.

[VI] LAND DEVELOPMENT MODEL

Future land use requirements are closely tied to the projected population. In the 1969 land development plan, the 1981 population for the Abuakwa Planning Area, which includes the town and its peri-urban area, was projected to be 4,192.[4] The current estimate by the Municipal of Commercial Services for the year 1997 is projected to be approximately 4,969. Because of Abuakwa's ability to change, it is not realistic to predicate population for the town linearly. The 1997 projected population of 4,969 for the Kwawoso Planning Area will be used for generating land use requirements for the planning area. From 1987, the year projected in the 1987 land development plan, to 1997, a six-year difference in projection from the last of the 1997 projections. This six-year difference in projection represents an increase of 34 persons.

Residential Types and Densities

Relating the housing conditions of families to the income and quantity who figure prominent of the town will depend a great deal on the type of housing available. Legislation, the cost of building materials, the more personal that can have their housing needs satisfied in the Abuakwa area. This is not meant to measure that as more supply of housing is built.

There are two modes in which to develop housing here. The most common would be as a function of constructing single-family dwellings, duplexes, apartments, townhouses, etc. The second are of "housing [illegible]

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[4]Division of Economic Planning. Land Use Survey and Analysis, and Land Development Plan, [illegible], 1969, p. 4.

describing the need it fulfills. Examples of this use of the word are: low, moderate, and fixed income; low maintenance or carefree; expandable, etc.

One of Aberdeen's housing problems seems to be that many families have too much for their needs; and at the present time, there is little alternative in selection in the housing supply. There is a need to provide less spacious housing for both young couples starting out and for older couples who either cannot afford or do not desire to maintain a home larger than their needs. These two groups can be satisfied by any number of housing types (construction). Included in these would be duplexes, townhouses, apartments, condominium cooperatives, and well-designed mobile home parks. By providing smaller sized housing for those that desire it, some of the existing housing supply can be freed for families that need larger homes.

The projected residential acreage needed for 1987 was 644 acres for the Aberdeen Planning Area. Overall residential land requirements in the planning area for 1993 are not expected to increase substantially. Assuming a 12.8 acres per year residential requirement, an additional 76.8 acres added to the already existing projection of 644 acres shows a total of 720.8 acres of residential land required by 1993.[5]

The total acreage devoted to residential use 20 years from now will depend a great deal on the flexibility of the zoning ordinance. Provisions should be included for permitting a wide range of suitable housing types to be profitably developed within densities acceptable to the Town of Aberdeen.

The major areas of residential growth are expected to be the Forest Hills and Ridgewood Areas with next highest area to be Colonial Heights and north of N.C. 211.

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[5]Projections based upon absolute change.

describing the need in [illegible]. Examples of this use of the land area, [illegible], and [illegible] [illegible] maintenance or [illegible], [illegible], etc.

One of Aberdeen's housing problems seems to be that many families have [illegible] for their needs, [illegible] at the present time, there is little alternative in selection in the housing supply. There is a need to provide less spacious housing for both young [illegible] and for older couples who either cannot afford or do not desire to maintain a home larger than their needs. These two groups can be satisfied by any number of housing types (construction). Included in these would be [illegible], apartments, condominium [illegible], and [illegible] mobile home parks. By providing smaller sized housing for those that desire it, [illegible] the existing housing supply can be freed for families [illegible] [illegible].

The projected residential acreage needed for 1987 was [illegible] acres for the Aberdeen Planning Area. Overall residential land requirements in the planning area for 1993 are [illegible] to increase substantially. Assuming a [illegible] acres per year residential requirement, an additional [illegible] acres added to the already existing projection of [illegible] acres shows a total of 720.[illegible] acres of residential land required by 1993.[5]

The total acreage devoted to residential use 20 years from now will depend a great deal on the final [illegible] of the zoning ordinance. Provisions should be included for permitting a wide range of suitable housing types to be profitably [illegible] [illegible] acceptable to the Town of Aberdeen.

The major areas of residential growth are expected to be the Forest Hills and Kingsmere areas with most highest area to be Colonial Heights and north of [illegible].

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[5]Project lines based upon absolute change.

Commercial Requirements

The projections for the future commercial land use indicate that an additional 119.6 acres of commercial land will be needed by 1993. This figure is based upon the 1987 commercial land use projection of 2.6 acres per year. Because of the desirability of locating commercial uses on major thoroughfares, it was felt that much of the future highway commercial acreage in the Aberdeen Planning area will gravitate toward highway U.S. 1.

Most of the expansion of retail business in the central business district (CBD) will probably be absorbed by vacancies left by highway related businesses moving out of the downtown area. It is expected that this growth will take place on vacant property in the retail district and by expansion into marginal residential areas bordering the CBD.

Industrial Requirements

Projecting future demand for industrial land is a bit more "tricky" than for other land uses. This is a result of the town's above average ability to attract new industry into the area. However, based on past trends and the 1987 projections, an estimate can be made for projecting industrial land use requirements in 1993. Industrial land uses are estimated to be 216 acres by 1987, based on past trends, this is an increase of 5.1 acres per year since 1967. Assuming the 5.1 acres will continue; the 1993 industrial land use requirement could be as much as 247 acres.[6]

However, predicting the exact industrial requirement for a 20-year period or up to 1993, on the basis of past trends is not a feasible way of describing future economic activity within the planning area. As stated earlier, much of

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[6]Based upon absolute change during the planning period.

the future industrial activity in Aberdeen will be dependent upon the town's ability to attract new industry.

In addition to simply attracting new industry and providing space for such industry, certain location standards listed below should be taken into account:

1. The land must be physically suitable with reasonably level topography and good drainage;
2. Access should be available from highways, railroads, or both;
3. Sites must be of varying sizes with both close-in fringe area locations in order to accommodate the different demands and needs of industrial and wholesaling uses.
4. Basic utilities such as water, sanitary sewer, and power must be available or easily obtainable.
5. The landscape should be attractive. Deteriorating or deteriorated areas are not suitable as sites unless complete redevelopment is undertaken.

Cultural and Recreational Use Requirements

The most significant increase in recreation use has been the recently aquired Aberdeen Lake area encompassing approximately 57 acres of land with water. Plans for this area are being controlled by the newly appointed Recreation Commission. Through their efforts, the lake area can not only be a delightful open space in the heart of town, but a functional and needed public recreational facility as well.

With the exception of expansion of recreational facilities at both school sites no additional recreational facilities (based on population projections) are needed during the planning period.

the future industrial activity in Aberdeen will be dependent upon the town's ability to attract new industry.

In addition to simply attracting new industry and providing space for such industry, certain location standards listed below should be taken into account:

1. The land must be physically suitable with reasonable level topography and good drainage.
2. Access to land should be available from highways, railroads, or ports.
3. Sites must be of varying sizes with both close-in fringe area locations in order to accommodate the different demands and needs of industrial and wholesaling uses.
4. Basic utilities such as water, sanitary sewer, and power must be available or easily coordinable.
5. The landscape should be attractive. Deteriorating or deteriorated areas are not suitable as sites unless complete redevelopment is undertaken.

Cultural and Recreational Use Requirements

The most significant increase in recreation use has been the recently acquired Jackson Fish Area Management approximately 57 acres of land with water. Plans for this area are being conditioned by the newly appointed Recreation Commission. Through their efforts, the Fish Area can not only be a delightful open space in the heart of town, but a functional and needed public recreational facility as well.

With the acceptance of a passive or recreational facilities at both school sites, no additional recreational facilities (based on population projections) are needed during the planning period.

Thoroughfare Requirements

Little change has occurred in the circulation system of Aberdeen since 1968. No major thoroughfares have been built or existing one's upgraded, however, several minor subdivision streets have been built.

This fact is important to note because the thoroughfare plan is a key element in the development plan. In order to plan for residential, commercial, or industrial land uses, there must be a good knowledge of what the future major streets will be like. If streets are not planned in a functional manner to serve existing and proposed land uses, there will be great pressure to change the development plan. A commercial or industrial area which is not served by major thoroughfares is likely to be unsuccessful or the minor streets leading into the area through residential areas will become major traffic carriers.

Five-hundred and seventy acres are projected for transportation uses by 1987, and this is expected to remain true by 1993. The main problem is still the traffic congestion of the downtown area, particularly on U.S. 1. In the Aberdeen Sketch Thoroughfare Plan,[7] this problem could be aliveated by using outer loop highways surrounding the town, and by realigning the intersection of Bethesda Road and Maple Avenue and Lakeshore Drive and Thomas Street.

Much of the proposed major thoroughfare plan consists of streets outside Aberdeen or in-town streets on the state responsibility system. However, the town can do much to speed up implementation of the plan by working on segments of the system under its responsibility, by encouraging the state to give priority to projects on the thoroughfare plan and by advance acquisition of right-of-way in critical areas of the thoroughfare plan.

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[7] Land Use Survey and Analysis and Land Development Plan, Aberdeen, N.C., 1968, P. 65.

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[7] Land Use Survey and Analysis and Land Development Plan, Aberdeen, N.C., 1968, p. 65.

PLAN IMPLEMENTATION

The town government and the people of Aberdeen can control the development of their town by implementaing the land development plan. By working toward the passage and enforcement of ordinances, regulations, and programs, such as the ones listed below, the town will be in a better position to control future development, both private and public.

Short-Range Implementation Measures (1974-1983)

1. The town should adopt the newly revised zoning ordinance for Aberdeen.
2. Subdivision regulations should be established and adopted by the Town Board. It is important that subdivisions be designed and developed according to the best practices available.
3. It is very important that Aberdeen acquire the services of a full-time building inspector to enforce the zoning ordinance and other related codes.
4. A continuing effort should be made in the formulation and adoption of a joint planning commission between Southern Pines and Aberdeen.
5. An effort should be put forth in the feasibility of hiring a City Manager for the town.
6. Public-minded citizens should become involved in the development of Aberdeen. Many other town organizations, such as church groups, civic groups, and fraternal organizations can participate in implementing the development plan.
7. The newly established Recreation Commission of Aberdeen should work closely with the County Recreation Commission in securing additional schools sites for neighborhood recreational facilities and programs.
8. Encourage the use of new growth concepts such as planned unit developments and cluster development.

PLAN IMPLEMENTATION

The town government and the people of Aberdeen can control the development of their town by implementing the land development plan. By working around the passage and enforcement of ordinances, regulations, and programs, such as the operational helper, the town will be in a better position to control future development, both private and public.

Short-range Implementation Measures (1974-1983)

1. The town should adopt the newly revised zoning ordinance for Aberdeen. Subdivision regulations should be established and adopted by the Town Board. It is important that every plan be designed and developed according to the best practices available.

2. It is very important that Aberdeen acquire the services of a full-time municipal engineer to enforce the zoning ordinance and other related codes.

3. An organizing effort should be made for the formulation and adoption of a general plan of conservation between Southern Pines and Aberdeen.

4. An effort should be put forth in the possibility of hiring a City Manager for the Town.

5. Public-owned facilities should increase Aberdeen's ability to the development of Aberdeen. The Town of the organizations, such as church groups, civic groups, and national organizations can be a potential implementing the development plan.

7. The newly established Aberdeen Commission of Business should work closely with the Chamber of Commerce in an effort to establish schools alone in neighborhood correctional facilities and programs.

8. Encourage the use of new planning concepts such as planned unit development and cluster development.

9. Adopt a sign ordinance to insure proper visual appearance, especially in area associated with highway serving businesses.

10. Develop a comprehensive policy for maintenance and extension of community facilities.

Long-Range Implementation Measures (1983-1993)

1. Continuing use of zoning and subdivision regulations (if adopted) as well as other codes. Re-evaluation and updating of these regulations will be necessary.

2. Consideration should be given to hiring a progessional planner for the town to provide day-to-day planning services.

3. Continue review and updating of the Land Development Plan in 1984.

4. Encourage continuing citizen participation in the planning functions of Aberdeen.

The above implementing activities, both short-range and long-range, together with the Community Facilities Plan, Public Improvements Program and the Transportation Plan, can improve the livability of Aberdeen for all citizens.

APPENDIX A

ENVIRONMENTAL CONSIDERATIONS

1. Abstract

This report is an update of a Land Development Plan prepared for Aberdeen in 1968. This update analyzes changes in development patterns and implementation methods, identifies new needs and recommends ways and means to meet those needs.

2. The following effects on the environment are based on the assumption that the entire planning area will be developed as per the plan:

   A. Adverse Effects:

      1. Increase in rain water run-off;
      2. Removal of some natural vegetation;
      3. Higher demands on resource-oriented recreation areas;
      4. Increase of sanitary sewer effluent and solid waste.

   B. Beneficial Effects:

      1. The very nature of the plan will allow the town to control its growth and expand efficiently the services demanded by an increasing population;
      2. Provides for more effective use of available land;
      3. Good traffic circulation reduces driving time — hence reduces air pollution caused by automobile exhausts;
      4. Upgrading of blighted areas;
      5. Encourages good visual aesthetics and overall community appearance;
      6. Encourages compatible land uses.

3. Effects of development which cannot be avoided entirely will be the loss of natural vegetation and increase in storm run-off and waste products.

4. Alternatives to the proposed plan would be either uncontrolled growth or no growth at all. Uncontrolled growth would cause irreparable damage to the environment, while no growth at all would cause the city to vegetate.

5. Relationship Between Short-Term Uses of Environment and Maintenance of Long-Term Productivity

The plan proposes orderly and systematic growth which will encourage efficient land use and protection of natural features. Over a long period, some farm lands and unproductive vacant areas will be encroached by development, but this should be minimal if efficiency is encouraged and utilized as a policy.

6. Irreversible and Irretrievable Commitment of Resources

The conversion of agricultural land to urban uses cannot be revised; however, a compact outward growth will mitigate the effects of loss of agricultural activity in the planning area.

7. Applicable Federal, State, and Local Control

Federal

a) National Environmental Policy Act of 1969
b) Land and Water Conservation Fund Act of 1964
c) Environmental Quality Act of 1970
d) Executive Order 11514, March, 1970
e) Executive Order 11593, May, 1971

State

a) Water Use Act of 1967
b) Floodway Regulation
c) Planning and Regulation of Development, Chapter 160A, Article 19
d) Soil Conservation District Law, 1937
e) Municipal Service Districts, Chapter 160A, Article 22

3. Effects of development which exceed or exceed entirely will be the loss of natural vegetation and increase in storm runoff and waste products.

4. Alternatives to the proposed plan could be either uncontrolled growth or no growth at all. Uncontrolled growth could cause irreparable damage to the environment, while no growth at all would cause the city to vegetate.

5. Relationship Between Short-Term Uses of Environment and Maintenance of Long-Term Productivity

The plan proposes orderly and systematic growth which will encourage efficient land use and protection of natural features. Over a long period, some farm lands and undeveloped areas will be overshadowed by development, but this should be minimal if efficiency is encouraged and utilized as a reality.

6. Irreversible and Irretrievable Commitment of Resources

The conversion of agricultural land to urban uses cannot be reversed; however, a compact growth pattern will minimize the effects on loss of agricultural activity in the planning area.

7. Applicable Federal, State, and Local Laws

Federal

a) National Environmental Policy Act of 1969
b) Land and Water Conservation Fund Act of 1965
c) Environmental Quality Act of 1970
d) Executive Order 11514, March, 1970
e) Executive Order 11593, May, 1971

State

a) Water Law Act of 1967
b) Floodway Regulation
c) Planning and Zoning of Development, Chapter 1404, Article 3
d) Soil Conservation District Law, 1941
e) Municipal Service Districts, Chapter 1404, Article 17

Local

a) Zoning Ordinance
b) Building and Housing Codes
c) Community Facilities and Public Improvements Program

8. Mitigation Measures

The adoption and use of the plan by public and private groups and participation by the citizenery will mitigate adverse environmental effects. Continued enforcement and updating of all planning reports will also assist the community in this regard.

9. At the time the plan was being updated no issues were raised with respect to federal, state, and local agencies.

NORTH CAROLINA DEPARTMENT OF NATURAL AND ECONOMIC RESOURCES
James E. Harrington, Secretary

Division of Community Assistance
Robert S. Ewing, Director

Local Planning and Management Services Section
Billy Ray Hall, Chief

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